

OIPE

RAW SEQUENCE LISTING

DATE: 11/01/2001

PATENT APPLICATION: US/09/976,800

TIME: 10:59:07

Input Set : A:\ES.txt

Output Set: N:\CRF3\11012001\I976800.raw

Does Not Comply
Corrected Diskette Needed

3 <110> APPLICANT: Wilson, Ron C.
4 Craft, David L.
5 Eirich, Dudley
6 Eshoo, Mark
7 Madduri, Krishna M.
8 Cornett, Cathy A.
9 Brenner, Alfred A.
10 Tang, Maria
11 Loper, John C.
12 Gleeson, Martin
14 <120> TITLE OF INVENTION: CYTOCHROME P450 MONOOXYGENASE AND NADPH CYTOCHROME P450
OXIDOREDUCTASE
15 GENES AND PROTEINS RELATED TO THE OMEGA HYDROXYLASE COMPLEX OF CANDIDA
16 TROPICALIS AND METHODS RELATING THERETO
18 <130> FILE REFERENCE: 1010-16
OK> 20 <140> CURRENT APPLICATION NUMBER: US/09/976,800
21 <141> CURRENT FILING DATE: 2001-10-12
23 <160> NUMBER OF SEQ ID NOS: 118
25 <170> SOFTWARE: PatentIn version 3.1

ERRORED SEQUENCES

5887 <210> SEQ ID NO: 118
5888 <211> LENGTH: 679
5889 <212> TYPE: PRT
5890 <213> ORGANISM: CANDIDATROPICALIS
5892 <400> SEQUENCE: 118
5894 Met Ala Leu Asp Lys Leu Asp Leu Tyr Val Ile Ile Thr Leu Val Val
5895 1 5 10 15
5898 Ala Val Ala Ala Tyr Phe Ala Lys Asn Gln Phe Leu Asp Gln Pro Gln
5899 20 25 30
5902 Asp Thr Gly Phe Leu Asn Thr Asp Ser Gly Ser Asn Ser Arg Asp Val
5903 35 40 45
5906 Leu Ser Thr Leu Lys Lys Asn Lys Asn Thr Leu Leu Leu Phe Gly
5907 50 55 60
5910 Ser Gln Thr Gly Thr Ala Glu Asp Tyr Ala Asn Lys Leu Ser Arg Glu
5911 65 70 75 80
5914 Leu His Ser Arg Phe Gly Leu Lys Thr Met Val Ala Asp Phe Ala Asp
5915 85 90 95
5918 Tyr Asp Trp Asp Asn Phe Gly Asp Ile Thr Glu Asp Ile Leu Val Phe
5919 100 105 110
5922 Phe Ile Val Ala Thr Tyr Gly Glu Gly Glu Pro Thr Asp Asn Ala Asp
5923 115 120 125
5926 Glu Phe His Thr Trp Leu Thr Glu Glu Ala Asp Thr Leu Ser Thr Leu
5927 130 135 140
5930 Arg Tyr Thr Val Phe Gly Leu Gly Asn Ser Thr Tyr Glu Phe Phe Asn
5931 145 150 155 160

RAW SEQUENCE LISTING

DATE: 11/01/2001

PATENT APPLICATION: US/09/976,800

TIME: 10:59:07

Input Set : A:\ES.txt

Output Set: N:\CRF3\11012001\I976800.raw

```

5934 Ala Ile Gly Arg Lys Phe Asp Arg Leu Leu Ser Glu Lys Gly Gly Asp
5935                      165                      170                      175
5938 Arg Phe Ala Glu Tyr Ala Glu Gly Asp Asp Gly Thr Gly Thr Leu Asp
5939                      180                      185                      190
5942 Glu Asp Phe Met Ala Trp Lys Asp Asn Val Phe Asp Ala Leu Lys Asn
5943                      195                      200                      205
5946 Asp Leu Asn Phe Glu Glu Lys Glu Leu Lys Tyr Glu Pro Asn Val Lys
5947                      210                      215                      220
5950 Leu Thr Glu Arg Asp Asp Leu Ser Ala Ala Asp Ser Gln Val Ser Leu
5951 225                      230                      235                      240
5954 Gly Glu Pro Asn Lys Lys Tyr Ile Asn Ser Glu Gly Ile Asp Leu Thr
5955                      245                      250                      255
5958 Lys Gly Pro Phe Asp His Thr His Pro Tyr Leu Ala Arg Ile Thr Glu
5959                      260                      265                      270
5962 Thr Arg Glu Leu Phe Ser Ser Lys Glu Arg His Cys Ile His Val Glu
5963                      275                      280                      285
5966 Phe Asp Ile Ser Glu Ser Asn Leu Lys Tyr Thr Thr Gly Asp His Leu
5967                      290                      295                      300
5970 Ala Ile Trp Pro Ser Asn Ser Asp Glu Asn Ile Lys Gln Phe Ala Lys
5971 305                      310                      315                      320
5974 Cys Phe Gly Leu Glu Asp Lys Leu Asp Thr Val Ile Glu Leu Lys Ala
5975                      325                      330                      335
5978 Leu Asp Ser Thr Tyr Thr Ile Pro Phe Pro Thr Pro Ile Thr Tyr Gly
5979                      340                      345                      350
5982 Ala Val Ile Arg His His Leu Glu Ile Ser Gly Pro Val Ser Arg Gln
5983                      355                      360                      365
5986 Phe Phe Leu Ser Ile Ala Gly Phe Ala Pro Asp Glu Glu Thr Lys Lys
5987                      370                      375                      380
5990 Thr Phe Thr Arg Leu Gly Asp Lys Gln Glu Phe Ala Thr Lys Val
5991 385                      390                      395                      400
5994 Thr Arg Arg Lys Phe Asn Ile Ala Asp Ala Leu Leu Tyr Ser Ser Asn
5995                      405                      410                      415
5998 Asn Thr Pro Trp Ser Asp Val Pro Phe Glu Phe Leu Ile Glu Asn Ile
5999                      420                      425                      430
6002 Gln His Leu Thr Pro Arg Tyr Tyr Ser Ile Ser Ser Ser Ser Leu Ser
6003                      435                      440                      445
6006 Glu Lys Gln Leu Ile Asn Val Thr Ala Val Val Glu Ala Glu Glu Glu
6007                      450                      455                      460
6010 Ala Asp Gly Arg Pro Val Thr Gly Val Val Thr Asn Leu Leu Lys Asn
6011 465                      470                      475                      480
6014 Ile Glu Ile Ala Gln Asn Lys Thr Gly Glu Lys Pro Leu Val His Tyr
6015                      485                      490                      495
6018 Asp Leu Ser Gly Pro Arg Gly Lys Phe Asn Lys Phe Lys Leu Pro Val
6019                      500                      505                      510
6022 His Val Arg Arg Ser Asn Phe Lys Leu Pro Lys Asn Ser Thr Thr Pro
6023                      515                      520                      525
6026 Val Ile Leu Ile Gly Pro Gly Thr Gly Val Ala Pro Leu Arg Gly Phe
6027                      530                      535                      540
6030 Val Arg Glu Arg Val Gln Gln Val Lys Asn Gly Val Asn Val Gly Lys

```

RAW SEQUENCE LISTING

DATE: 11/01/2001

PATENT APPLICATION: US/09/976,800

TIME: 10:59:07

Input Set : A:\ES.txt

Output Set: N:\CRF3\11012001\I976800.raw

```
6031 545          550          555          560
6034 Thr Leu Leu Phe Tyr Gly Cys Arg Asn Ser Asn Glu Asp Phe Leu Tyr
6035          565          570          575
6038 Lys Gln Glu Trp Ala Glu Tyr Ala Ser Val Leu Gly Glu Asn Phe Glu
6039          580          585          590
6042 Met Phe Asn Ala Phe Ser Arg Gln Asp Pro Ser Lys Lys Val Tyr Val
6043          595          600          605
6046 Gln Asp Lys Ile Leu Glu Asn Ser Gln Leu Val His Glu Leu Leu Thr
6047          610          615          620
6050 Glu Gly Ala Ile Ile Tyr Val Cys Gly Asp Ala Ser Arg Met Ala Arg
6051 625          630          635          640
6054 Asp Val Gln Thr Thr Ile Ser Lys Ile Val Ala Lys Ser Arg Glu Ile
6055          645          650          655
6058 Ser Glu Asp Lys Ala Ala Glu Leu Val Lys Ser Trp Lys Val Gln Asn
6059          660          665          670
6062 Arg Tyr Gln Glu Asp Val Trp
6063          675
```

E--> 6069 (107)

VERIFICATION SUMMARY

DATE: 11/01/2001

PATENT APPLICATION: US/09/976,800

TIME: 10:59:08

Input Set : A:\ES.txt

Output Set: N:\CRF3\11012001\I976800.raw

L:20 M:270 C: Current Application Number differs, Replaced Current Application Number
L:21 M:271 C: Current Filing Date differs, Replaced Current Filing Date
L:378 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:23
L:420 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:24
L:462 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:25
L:510 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:26
L:6069 M:332 E: (32) Invalid/Missing Amino Acid Numbering, SEQ ID:118